

Appendix F

```
' ***** LCD PANEL *****  
' PIC16F819
```

```
'* SET UP BASIC ENVIRONMENT  
    DEFINE CHAR_PACING 1000
```

```
' PORTA.0 = CURRENT SENSE  
' PORTA.1 = POT  
' PORTA.2 = THERMISTOR  
' PORTA.3 = VOLTAGE SENSE  
' PORTA.4 =  
' PORTA.5 =
```

```
' PORTB.0 =  
' PORTB.1 =  
' PORTB.2 = NPN  
' PORTB.3 = FORMERLY NPN  
' PORTB.4 = PNP  
' PORTB.5 =  
' PORTB.6 =  
' PORTB.7 =
```

```
'*****  
'*  
'* ENVIRONMENT *  
'*  
'*****
```

```
    DEFINE CHAR_PACING 1000
```

```
'*****  
'*  
'* VARIABLES *  
'*  
'*****
```

```
N      VAR      BYTE  
X      VAR      BYTE  
Y      VAR      BYTE  
Z      VAR      BYTE
```

```
X2     VAR      WORD  
Y2     VAR      WORD
```

```
MISCF  VAR      BYTE      BANK0
```

```
LCNT   VAR      BYTE  
VOLTS  VAR      WORD  
VOUT   VAR      WORD  
CURRENT VAR      WORD  
AMP     VAR      WORD  
TEMP    VAR      WORD  
IOFFSET VAR      WORD
```

```
POTAVG VAR      WORD  
L20     VAR      WORD  
PCNT    VAR      BYTE  
LCURRENT VAR      WORD
```

```
BCNT   VAR      BYTE
```

```
VIDLE  VAR      WORD  
VMAX   VAR      WORD
```

```
POTBUF  VAR      WORD(16)  
ACNT    VAR      BYTE  
CCNT    VAR      BYTE
```

```
ALOOP  VAR      BYTE  
ELOOP  VAR      BYTE
```